

Application Memo

Determination of Mixed Acids (Nitric Acid, Hydrofluoric Acid, Acetic Acid)

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Neutralization titration
Standards	

1. Overview

After adding acetone to the sample, three acids concentrations are measured by titration with 0.5mol/L sodium hydroxide ethanol solution. The endpoints are the maximum inflexions on the titration curve. Each acid concentration is calculated from the titration volume of the sodium hydroxide solution at each endpoint.

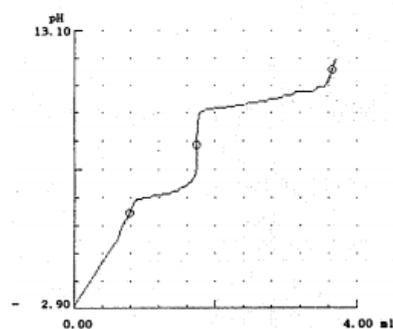
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	pH glass electrode Ceramic reference electrode Temperature compensation electrode

3. Reagents

Titrant	0.5mol/L sodium hydroxide ethanol solution
Additive	Acetone

4. Example



-Titration curve-

—Measurement results—

	Sulfuric acid (%)	Hydrofluoric acid (%)	Acetic acid (%)
Average	23.998	9.064	54.759
SD	0.391	0.067	0.773
RSD(%)	1.63	0.74	1.41

Please feel free to contact us for any further information.
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